

7. (Amended) A bruxism appliance as in claim 6 wherein the pH indicator is incorporated into the abradable overlayer or chemically or mechanically fixed to the appliance.

8. (Amended) A method of coating a bruxism appliance comprising the steps of:

- (a) fitting a bruxism appliance having a polymeric base to a patient's upper or lower dentition;
- (b) applying an abradable overlayer to the polymeric base by any one of or a combination of painting or spraying wherein an abradable overlayer is selected from any one of or a combination of an acrylic resin, natural resin or composite material.

IN THE FIGURES:

Please replace Figures 1-3 with new Figures 1-3 attached herewith.

REMARKS:

The Examiner's continued assistance with this application is greatly appreciated.

In view of the foregoing amendments and these remarks, reconsideration of the application is requested.

Claims 1 and 8 have been amended for clarity and to more clearly define the subject matter for which the applicant is seeking protection. More specifically, these claims have been amended to clarify that the bruxism appliance is initially fitted to a patient's dentition prior to the abradable overlayer being applied. Support for these amendments is specifically provided in the second and third paragraphs on page 5. Claims 9-11 have been cancelled. Accordingly, claims 1-8 remain pending herein.

Reference numerals have been introduced into both the description (page 5) and figures to address the Examiner's objection under 37 CFR 1.84(p)(5) and the Examiner's objections to the claims under 35 USC 112. With respect to the Figures, Applicant will file formal drawings upon receipt of a notice of allowance.

The summary of invention has also been amended to reflect the amendments to the claims. No new matter has been added.

In the Office Action, the Examiner rejected claims 1-11 under 35 USC 102 as being anticipated by

Chorbajian. In view of the amendments to the independent claims and specifically the clarification that the abrasable overlayer is applied to the molded polymeric base, Applicant submits that the Examiner's rejections in view of this reference are overcome.

Initially, Applicant notes that Chorbajian describes an occlusal splint as opposed to a bruxism appliance. An occlusal splint is normally created to address temporomandibular joint pain whereas a bruxism appliance is created to address problems associated with grinding where pain is normally not an issue. Accordingly, Chorbajian seeks to solve a problem entirely different to Applicant's bruxism appliance. However, and as indicated, Applicant has amended independent claims 1 and 8 to further emphasize the distinctiveness of Applicant's bruxism appliance in terms of the structure and function of each of the two layers of the appliance. As such, Chorbajian fails to teach a bruxism appliance having an abrasable overlayer which is applied to a polymeric base after fitting of the appliance in the patient's mouth.

Further, while Chorbajian teaches a polymeric base, the second layer is not an "abrasable overlayer" for use in determining the degree of bruxism. Rather, the second layer of Chorbajian is a structural component of the occlusal splint which is "shaped so that all the lower posterior teeth strike the splint at the same time, equalizing the pressure on each lower posterior tooth" (see column 2, lines 61-64). As a result, it is not intended to be abrasable in order to provide an indication of the degree of bruxism as required by claims 1 and 8.

Accordingly, the rejection under 35 USC 102 to claims 1-3 and 8 is believed overcome. In that each of the remaining claims 4-7 are dependent on claim 1, all claims are believed to be in a condition for allowance.

Respectfully submitted,

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1. Appendix
2. Amended Figures

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APPENDIX:

MARKED UP VERSION OF AMENDED DISCLOSURE AND CLAIMS SHOWING CHANGES MADE IN THE DISCLOSURE AND CLAIMS

DISCLOSURE:

(Amended)

SUMMARY OF THE INVENTION

In accordance with the invention, there is provided a bruxism appliance comprising a molded polymeric base for placement and fitting to ~~on~~ a patient's upper or lower dentition, the molded polymeric base including an abradable overlayer ~~on the appliance~~ applied after fitting the molded polymeric base to the upper or lower dentition the overlayer being a different colour to the polymeric base whereby use of the appliance by a patient indicates the degree of bruxism by the patient by abrasion of the overlayer.

In further embodiments of the invention, the molded polymeric base is selected from any one of or a combination of acrylic resin or plastic and/or the abradable overlayer is selected from any one of or a combination of an acrylic resin, natural resin or composite.

In one embodiment the overlayer has a hardness softer than the molded polymeric base.

In a specific embodiment, the overlayer includes an acrylic resin blended with a titanium oxide pigment. In a still further embodiment, a pH indicator is bound to the appliance for indicating the pH of a patient's mouth during use of the appliance wherein the pH indicator can be incorporated into the abradable overlayer or chemically or mechanically fixed to the appliance.

In another form of the invention, there is provided a method of coating a bruxism appliance comprising the steps of:

(a) fitting a ~~applying an abradable overlayer to a polymeric base of the~~ bruxism appliance having a polymeric base to a patient's upper and lower dentition; and,

(b) applying an ~~by any one of or a combination of painting or spraying and the~~ abradable overlayer to the polymeric base by any one of or a combination of painting or spraying where the abradable overlayer is selected from any one of or a combination of an acrylic resin, natural resin or composite material.

In a still further form, the invention provides a kit for applying an abradable overlayer to a polymeric base

of a bruxism appliance, the kit comprising a packaged amount of a liquid abradable overlayer composition and an applicator wherein the overlayer composition and an applicator brush contained within a sterile package.

In further embodiments of the kit, the applicator is selected from a brush or a spray container and/or the abradable overlayer is selected from any one of or a combination of an acrylic resin, natural resin or composite material.

(Amended - First three paragraphs)

DETAILED DESCRIPTION OF THE INVENTION

With references to the figures, a bruxism appliance 10 and method of treating a bruxism appliance is described.

A bruxism appliance 10 having a polymeric base 12 is fitted to a patient's teeth as in known in the art by initially adjusting the appliance to fit comfortably and occlude evenly against the opposing dentition. This process may require spot grinding with a slow speed hand tool and the use of articulating paper. After proper fitting, the appliance would otherwise be cleaned for delivery to the patient. A bruxism appliance 10 having a polymeric base 12 is preferably manufactured from an acrylic resin.

In accordance with the invention, a coating 14 is applied to the opposing teeth contacting surfaces of the polymeric base 12 ~~[appliance]~~ to a desired thickness by hand brushing, spray painting or dipping. Typically, this thickness is sufficient to fully coat the desired surfaces of the appliance but not overly thick so as to affect the fit of the appliance. The coating 14 is allowed to dry or cure as appropriate for the specific composition.

CLAIMS

1. **(Amended)** A bruxism appliance comprising a molded polymeric base for placement ~~for~~ and fitting to a patient's upper or lower dentition, the molded polymeric base including an abradable overlayer ~~[on the appliance]~~ applied after fitting the molded polymeric base to the upper or lower dentition, the overlayer being a different colour to the polymeric base whereby use of the appliance by a patient indicates the degree of bruxism by the patient by abrasion of the overlayer.

2. (Amended) A bruxism appliance as in claim 1 where the molded polymeric base is selected from any one of or a combination of acrylic resin or plastic.
3. (Amended) A bruxism appliance as in claim 1 wherein the abradable overlayer is selected from any one of or a combination of an acrylic resin, natural resin or composite.
4. (Amended) A bruxism appliance as in claim 1 wherein the overlayer has a hardness softer than the molded polymeric base.
5. (Amended) A bruxism appliance as in claim 4 wherein the overlayer includes an acrylic resin blended with a titanium oxide pigment.
6. (Amended) A bruxism appliance as in claim 1 further comprising a pH indicator bound to the appliance for indicating the pH of a patient's mouth during use of the appliance.
7. (Amended) A bruxism appliance as in claim 6 wherein the pH indicator is incorporated into the abradable overlayer or chemically or mechanically fixed to the appliance.
8. (Amended) A method of coating a bruxism appliance comprising the steps of:
 - (a) fitting a [applying an abradable overlayer to a polymeric base of the] bruxism appliance having a polymeric base to a patient's upper or lower dentition;
 - (b) applying an [by any one of or a combination of painting or spraying and the] abradable overlayer to the polymeric base by [is selected from] any one of or a combination of painting or spraying wherein an abradable overlayer is selected from any one of or a combination of an acrylic resin, natural resin or composite material.
9. ~~[A kit for applying an abradable overlayer to a polymeric base of a bruxism appliance comprising:
—— a packaged amount of a liquid abradable overlayer composition; and,
—— an applicator;
—— the overlayer composition and an applicator brush contained within a sterile package.]~~
10. ~~[A kit as in claim 9 wherein the applicator is selected from a brush or a spray container.]~~

11. ~~[A kit as in claim 9 wherein the abradable overlayer is selected from any one of or a combination of an acrylic resin, natural resin or composite material.]~~